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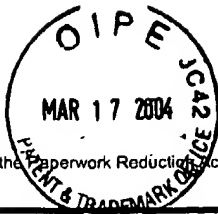
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for Form 1449A/PTO				Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Applicant N .	09/851,593
				Filing Date	May 8, 2001
				First Name of Inventor	Tian Shen
				Art Unit	2633
				Examiner Name	Dalzd E. Singh
Sheet	1	of	1	Attorney Docket Number	20852-05135

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Number - Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
NC	1	US-6,603,822B2	08-05-2003	Brude et al.
NC	2	US-5,060,310	08-22-1991	Frisch et al.
NC	3	US-4,768,186	08-30-1988	Bodell

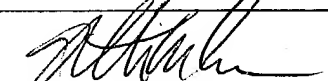
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FOREIGN PATENT DOCUMENTS				
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OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>

Examiner Signature		Date Considered	8/5/04
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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application No.	09/851,593
Filing Date	May 8, 2001
First Named Inventor	Tian Shen
Art Unit	2633
Examiner Name	Dalziel E. Singh
Attorney Docket Number	20852-05135

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### U.S. PATENT DOCUMENTS

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Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
nc	1	US-5,481,542	01-02-1996	Logston et al.
nc	2	US-5,612,806	03-18-1997	Su et al.
nc	3	US-6,078,412	06-20-2000	Fuse, et al.

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
nc	4	JP09022038 A	01-21-1997	Kokusai Electric Co Ltd	
nc	5	JP09098155 A	04-08-1997	Matsushita Electric Ind Co Ltd.	

### OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
nc	6	Blumenthal, Daniel J. et al., "Fiber-Optic Links Supporting Baseband Data and Subcarrier-Multiplexed Control Channels and the Impact of MMIC Photonic/Microwave Interfaces," <i>IEEE Transactions on Microwave Theory and Techniques</i> (August 1997), Vol. 45, No. 8, pp. 1443-1451.	
nc	7	Liew, Soung C. et al., "A Broad-Band Optical Network Based on Hierarchical Multiplexing of Wavelengths and RF Subcarriers," <i>Journal of Lightwave Technology</i> (November 1989), Vol. 7, No. 11, pp. 1825-1838.	

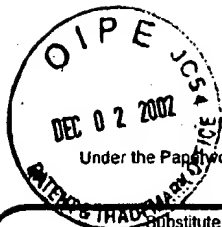
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Substitute for form 1449A/PTO

**Complete if Known**

Application No.	09/851,593
Filing Date	May 8, 2001
First Named Inventor	Tian Shen
Art Unit	2633
Examiner Name	Dalzid E. Singh
Attorney Docket Number	5135 US

Sheet	1	of	1
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**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
ML	A	6,058,227	05/02/2000	Wong

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>

**OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS**

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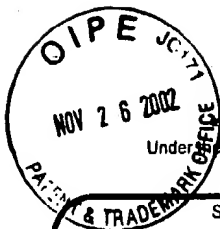
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Substitute for form 1449A/PTO</b>	
				<b>Complete if Known</b>	
				Application No.	09/851,593
				Filing Date	May 8, 2001
				First Named Inventor	Tian Shen
				Art Unit	2633
Examiner Name	Dalzid E. Singh				
Attorney Docket Number	5135 US				
Sheet	1	of	1		

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nc	A	EP 0982969 A2	03/01/2000	Nortel Networks Corporation	
nc	B	EP 0822691 A2	02/04/1998	Victor Company of Japan, Limited	
nc	C	FR 2755552 A1	05/07/1998	Telediffusion FSE	

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS					
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nc	D	PCT International Search Report for International Application No. PCT/US 01/15950, Date of Mailing October 17, 2002, 6 pages			

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				<b>Complete if Known</b>	
				Application No.	09/851,593
				Filing Dat	May 8, 2001
				First Named Inventor	Tian Shen
				Art Unit	2633
Examiner Name	Not Yet Known				
Attorney Docket Number	5135 US				
Sheet	1	of	1		

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
MC	A	US-4704715	11-03-1987	Shibagaki et al.
MC	B	US-5018135	05-21-1991	Ashi et al.
MC	C	US-5111323	05-05-1992	Tanaka et al.
MC	D	US-5134609	07-28-1992	Mori et al.
MC	E	US-5311501	05-10-1994	Takatsu
MC	F	US-5896387	04-20-1999	Fujita et al.
MC	G	US-6111676	08-29-2000	Lemus et al.
MC	H	US-6144428	11-07-2000	Schadt et al.
MC	I	US-6144786	11-07-2000	Chethik
MC	J	US-6288808 B1	09-11-2001	Lee et al.
MC	K	US-6335810 B1	01-01-2002	Uehara

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FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>

Examiner Signature		Date Considered	8/5/04
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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.



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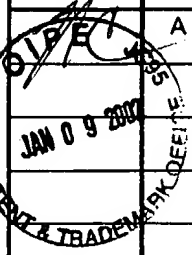
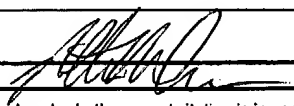
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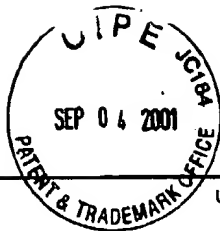


<b>FORM PTO-1449</b> (REV. 6-89)		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. <b>20852-05135</b>		Serial No. <b>09/851,593</b>	
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				Applicant <b>Tian Shen et al.</b>			
				Filing Date <b>May 8, 2001</b>		Group Art Unit <b>2633</b>	
<b>U.S. PATENT DOCUMENTS</b>							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	5,930,231	07/27/99	Miller et al.	370	210	
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation Yes    No
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
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FORM PTO-1449 (REV. 6-89)		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. 20852-05135		Serial No. 09/851,593		
<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				Applicant Tian Shen et al.				
				Filing Date May 8, 2001		Group Art Unit 2633		
<b>U.S. PATENT DOCUMENTS</b>								
Examiner		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
nc	A	6,078,412	06/20/00	Fuse et al.	359	124	10/03/96	
nc	B	5,878,088	03/02/99	Knutson et al.	375	324	04/10/97	
nc	C	5,680,238	10/21/97	Masuda	359	132	11/09/95	
nc	D	5,596,436	01/21/97	Sargis et al.	359	132	07/14/95	
nc	E	5,576,874	11/19/96	Czerwicz et al.	359	123		
nc	F	5,559,561	09/24/96	Wei	348	470	07/15/94	
nc	G	5,461,612	10/24/95	Göckler et al.	370	55	10/24/94	
nc	H	5,430,568	06/04/95	Little et al.	359	124		
nc	I	5,387,927	02/07/95	Look et al.	348	6	09/17/93	
nc	J	5,351,148	9/27/94	Maeda et al.	359	124	05/26/93	
nc	K	4,953,156	8/28/90	Olshansky et al.	370	3	09/08/88	
nc	L	4,701,904	10/20/87	Darcie	370	3		
nc	M	4,061,577	12/06/77	Bell	250	199	8/18/76	
<b>FOREIGN PATENT DOCUMENTS</b>								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
nc	N	EP 0 717 521 A	06/19/96	EP				No
nc	O	EP 0 756 393 A1	01/29/97	EP				No
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>								
nc	P	Alcatel, "Alcatel 1680 SM 10 Gbps (STM-64) Add Drop Multiplexer", copyright 1997 (printed from <a href="http://www.alcatel.com/telecom/mbd/products/products/1680sm.htm">http://www.alcatel.com/telecom/mbd/products/products/1680sm.htm</a> on May 24, 1999), pp. 1-4						
nc	Q	Alcatel, "Alcatel 1692 SM 10 Gbps (OC-192) SONET Transport System", copyright 1997 (printed from <a href="http://www.alcatel.com/telecom/mbd/products/products/1692.htm">http://www.alcatel.com/telecom/mbd/products/products/1692.htm</a> on May 24, 1999), pp. 1-2						
nc	R	Alcatel, "The OPTINEX Family of Network Elements", copyright 1997 (printed from <a href="http://www.alcatel.com/telecom/tsd/products/family.htm">http://www.alcatel.com/telecom/tsd/products/family.htm</a> on May 24, 1999), pp. 1-7						
nc	S	Business Wire, "Harmonic Lightwaves Announces Availability of First MCNS-Compliant QAM Modulator; TRANSEND QAM is a Vital Component for Delivering Digital Services", November 18, 1997						
EXAMINER				DATE CONSIDERED 8/9/04				
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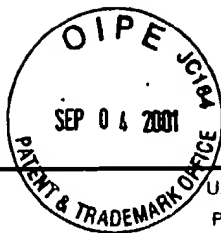


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Sheet 2 of 4

<b>FORM PTO-1449</b> (REV. 6-89)		<b>U.S. DEPARTMENT OF COMMERCE</b> Patent and Trademark Office		<b>Attorney's Docket No.</b> 20852-05135		<b>Serial No.</b> 09/851,593	
<b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)				<b>Applicant</b> Tian Shen et al.			
				<b>Filing Date</b> May 8, 2001		<b>Group Art Unit</b> 2633	
<b>U.S. PATENT DOCUMENTS</b>							
<b>Examiner Initial</b>		<b>Document Number</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	<b>Filing Date If Appropriate</b>
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>Document Number</b>	<b>Date</b>	<b>Country</b>	<b>Class</b>	<b>Subclass</b>	<b>Translation</b> Yes No
<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
MC	T	Cambrian Systems Corporation, "OPTera Metro Optical Networking Platform Product Information," copyright 1997 (printed from <a href="http://www.cambriansys.com/productinfo.htm">http://www.cambriansys.com/productinfo.htm</a> on May 24, 1999), pp. 1-4					
MC	U	Dai, H., C. Lin, M. Ramachandran, "Hybrid AM/QAM Video Trunking Lightwave Systems With Cascaded EDFAs", Conf. Proc. LEOS, 97 Annual Meeting, IEEE Lasers & Electro Optic Society, 1997, Vol. 1, pp. 319-320					
MC	V	Douverne, E., M. Ottka, K. Ruthemann, K. Siegel, "Ein 64-QAM-Modem für SDH-Richtfunkgeräte mit integriertem Kreuzpolarisationsentkoppler", Vol. 40, No. 11, 1 March 1994, pages 89-100					
MC	W	Fujitsu Network Communications, Inc., "Flash-192 Fujitsu Lightwave Add/Drop Multiplexer," copyright 1997 (printed from <a href="http://www.fnc.fujitsu.com/technology/falsh192.htm">http://www.fnc.fujitsu.com/technology/falsh192.htm</a> on May 24, 1999), pp. 1-4					
MC	X	Fuse, M., Y. Kudo, K. Maeda, "Development of 128 Optical Distribution System of 150 chs AM/QAM Hybrid Signals", <i>Electronics and Communications in Japan</i> , November 1996, Volume 79, Issue 11, Part 1, pp. 65-77					
MC	Y	Green, P., "Fiber Optic Networks", 1993, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, p. 331, line 4 - line 7, figure 9-1					
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<b>EXAMINER</b>				<b>DATE CONSIDERED</b> 8/5/01			
EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



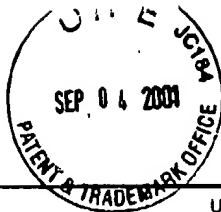
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Sheet 3 of 4

FORM PTO-1449 (REV. 6-89)		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. 20852-05135		Serial No. 09/851,593	
INFORMATION DISCLOSURE CITATION  (Use several sheets if necessary)				Applicant Tian Shen et al.			
				Filing Date May 8, 2001		Group Art Unit 2633	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
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<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>Document Number</b>	<b>Date</b>	<b>Country</b>	<b>Class</b>	<b>Subclass</b>	<b>Translation</b> Yes No
<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
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MC	VV	Ryan, J., "WDM: North American Deployment Trends," <u>IEEE Communications Magazine</u> , February 1998, pp. 40-44.					
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<b>EXAMINER</b>					<b>DATE CONSIDERED</b> 8/2/04		
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Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
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MC	AB	4,529,949	7/16/85	de Wit et al.	330	289	2/8/83
MC	AC	4,552,458	11/12/85	Lowne	356	446	10/11/83
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MC	AE	4,787,398	11/29/88	Garcia et al.	128	770	7/25/86
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		Document Number	Date	Country	Class	Subclass	Translation
MC	AN	WO 99/23479	05/14/99	PCT			Yes No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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